Serial No. 09/664,565 Page 2 of 12

IN THE CLAIMS:

Please amend the claims as follows:

1-8. (Cancelled)

- 9. (Currently Amended) A method for configuring a router in a communication network using an Open Shortest Path First (OSPF) protocol, comprising:
- (a) determining that the router is not physically or virtually connected to a backbone area of the network or an area border router (ABR) of the network;
- (b) establishing at least one physical link from the router to at least one non-ABR or at least one ABR of the network;
- (c) establishing a virtual link from the router to the <u>a</u> backbone <u>router in the backbone area</u> through the at least one non-ABR and at least one ABR of an area associated with the at least one non-ABR when, at the step (b), said physical link is established to the at least one non-ABR; and
- (d) establishing a virtual link from the router to the <u>a</u> backbone <u>router in the</u> <u>backbone area</u> through the at least one ABR when, at the step (b), the physical link is established to the at least one ABR.
- 10. (previously presented) The method of claim 9 wherein at least one of the steps (a), (c), and (d) further comprises:

using a network management system (NMS).

11. (previously presented) The method of claim 9 wherein the step (b) further comprises:

establishing the physical links having minimal network latencies.

12. (previously presented) The method of claim 9 wherein the step (c) further comprises:

establishing the virtual link from the at least one ABR to the backbone.

Serial No. 09/664,565 Page 3 of 12

13. (previously presented) The method of claim 9 wherein the step (d) further comprises:

establishing the virtual link from the at least one ABR to the backbone.

14. (Currently Amended) A method for configuring a communication network using an Open Shortest Path First (OSPF) protocol, comprising:

grouping routers of the network to form at least one routing domain, each routing domain including a plurality of neighboring routers;

forming in each routing domain at least one area border router (ABR) having at least one physical link to <u>at least one of</u> a backbone <u>area</u> of the network and/or <u>and</u> a router of other routing domain of the network; and

configuring the routers using the steps of:

- (a) determining that a router is not physically or virtually connected to [[a]] the backbone <u>area</u> of the network or the ABR of the network;
- (b) establishing at least one physical link from the router to at least one non-ABR or at least one ABR of the network;
- (c) establishing a virtual link from the router to the <u>a</u> backbone <u>router in the</u> <u>backbone area</u> through the at least one non-ABR and at least one ABR of an area associated with the at least one non-ABR when, at the step (b), the physical link is established to the at least one non-ABR; and
- (d) establishing a virtual link from the router to the <u>a</u> backbone <u>router in</u> the backbone area through the at least one ABR when, at the step (b), the physical link is established to the at least one ABR.
- 15. (previously presented) The method of claim 14 wherein at least one of the steps (a), (c), and (d) further comprises:

using a network management system (NMS).

16. (previously presented) The method of claim 14 wherein the step (b) further comprises:

establishing the physical links having minimal network latencies.

Serial No. 09/664,565 Page 4 of 12

17. (previously presented) The method of claim 14 wherein the step (c) further comprises:

establishing the virtual link from the at least one ABR to the backbone.

18. (previously presented) The method of claim 14 wherein the step (d) further comprises:

establishing the virtual link from the at least one ABR to the backbone.